

DISCOVERY OF THE GENUS *BIRTHOSEA* HOLLOWAY FROM CHINA WITH DESCRIPTIONS OF TWO NEW SPECIES (LEPIDOPTERA, LIMACODIDAE)

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Abstract The present paper reports the genus *Birthosea* Holloway for the first time from China. Two species, *B. trigramma* and *B. trigrammoidea*, are described as new to science. The photographs and the genital illustration of the new species are given. A key to the known species of the genus is provided.

Key words Lepidoptera, Limacodidae, *Birthosea*, new species, China.

Introduction

The genus *Birthosea* was established by Holloway (1986), based on the type species, *Parasa bisura* Moore, 1859. The genus is monotypic and occurs in Indonesia, Malaysia and Thailand.

In this paper, the genus *Birthosea* Holloway is reported for the first time in China, including 2 species described as new to science.

The type specimens of the new species are deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Birthosea Holloway, 1986 New record to China

Birthosea Holloway, 1986. *Malay. Nat. Jour.*, 40 (1-2): 116.

Type species: *Parasa bisura* Moore, 1859, by original designation.

Male antenna bipectinate to discal 3/4. Tibia of foreleg without white spot. Forewing with R_2 almost from upper angle of cell, veins R_{3+5} stalked, $2+3A$ forked at base. Hindwing with veins R_s and M_1 stalked; lower angle of cell obviously produced.

In male genitalia, uncus ventrally with a small spine, juxta composed of a pair of elliptic plates bearing minute spines and bristles. In female genitalia, ductus bursae long and spiral, corpus bursae with a crescent signum.

Distribution. Indonesia, Thailand, China.

Key to the species of the *Birthosea*

1. Forewing with a dark chevron between discal spot and dorsum
..... *B. bisura* (Moore)
- Forewing with an oblique line between discal spot and dorsum 2
2. Forewing with pale lines wider; juxta with lateral process geniculate at base *B. trigramma* sp. nov.
- Forewing with pale lines thinner; juxta with lateral process straight at base
..... *B. trigrammoidea* sp. nov.

1 *Birthosea trigramma* sp. nov. (Figs. 1, 3)

Adult (Fig. 1). Wing expanse 22–26 mm. Body yellowish brown to dark yellowish brown. Anal tuft black apically. Forewing yellowish brown to dark yellowish brown; inner and medial lines dark brown, parallel, forming a pale fascia between them; discal spot indistinct; subterminal line straight, from costal margin before apex to tornus, lined with pale outside; termen dark. Hindwing same colour as forewing.

Male genitalia (Figs. 3a, 3b). Uncus with a small distal spine ventrally; gnathos thick and long, apex rounded; valva wide at base, tapering to middle, distal half almost equal, about 1/3 width of basal half, apex rounded; juxta sclerotized, composed of two lobes bearing densely minute spines in surface and one stout spine in middle of inner margin; aedeagus narrow and long, straight, cornuti absent.

Female genitalia. Papillae anales with an accessory lobe between their inner margins; anterior apophysis very short.

Holotype ♂, Yunnan, Lijiang, Mt. Yulong (2950 m), 28 June–10 July 1962, SONG Shi-Mei (L06191, L06192). Paratypes: 1 ♀, 4 ♂♂ same data as holotype; 4 ♂♂, Lijiang, 22 May 1980, GAO Ping (L06166); 1 ♂, Lijiang, Experimental Forestry Farm, 14 July 1982; 1 ♂, Dongchuan (1900 m), 5 July 1980, CHENG Zhen; 1 ♂, Yiliang, Xiaocaoba Forestry Farm (1840 m), 25 June 1981, LUO Zheng-Rong; 1 ♂, Weixi, Pangtiange (2500 m), 23 July 1981, LIAO Shu-Bai; 1 ♂, Lushui (2500 m), 19 June 1981, WANG Shu-Yong; 2 ♂♂, Yulong, Mt. Zhibeng (2430 m), 20 June 1981, LIAO Shu-Bai, WANG Shu-Yong; 5 ♂♂, Yongsheng, Liude (2400 m), 8 July 1984, LIU Da-Jun; 1 ♂, Fahai Forestry Farm (2500 m), 15 May 1980, JIN Shi-Lin.

Etymology. The name is derived from the Greek prefix “tri” (= three) and “gramme” (= line),

The study was supported by National Natural Science Foundation of China (30770270, 30499341) and National Science Fund for Fostering Talents in Basic Research (Special subjects in animal taxonomy, NSFGJ0630964J0109).

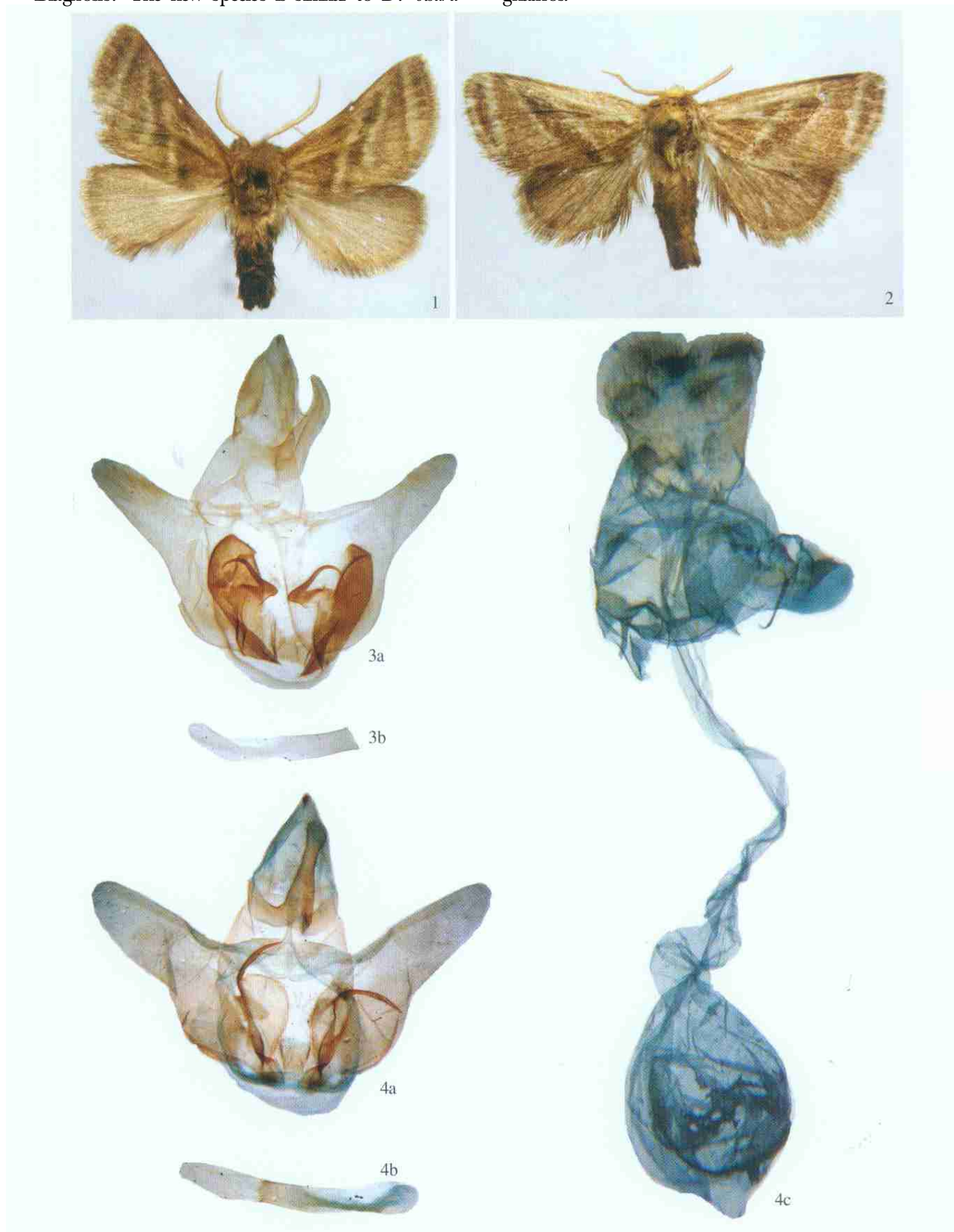
Received 9 Jan. 2008, accepted 12 Mar. 2008.

corresponding to the three fasciae on the forewing.

Distribution. Yunnan.

Diagnosis. The new species is similar to *B. bisura*

(Moore) in male genitalia, but differs from it by the wider valva at base and the unwidening apex of the gnathos.



Figs. 1-2. Adults. 1. *Bithosea trigramma* sp. nov. 2. *B. trigrammoides* sp. nov. Figs. 3-4 Genitalia. (a. Male genitalia. b. Aedeagus. c. Female genitalia) 3. *Bithosea trigramma* sp. nov. 4. *B. trigrammoides* sp. nov.

2 *Birthissea trigrammoidea* sp. nov. (Figs. 2, 4)

Adult (Fig. 2). Wing expanse 20-25 mm. Body yellowish brown to dark yellowish brown, anal tuft darker apically. Forewing yellowish brown to dark yellowish brown; inner and medial lines pale yellowish brown, parallel, forming a pale fascia between them; discal spot not obvious; subterminal line straight, from costal margin before apex to tomus, pale yellowish brown; termen dark. Hindwing same colour as forewing.

Male genitalia (Figs. 4a, 4b). Uncus with a small distal spine ventrally; gnathos thick and long, apex widening; valva wide at base, tapering to middle, apical half almost equal, about 1/3 width of basal half, apex rounded; juxta sclerotized, composed of 2 lobes bearing densely minute spines in surface and 1 long spine in middle of inner margin; aedeagus narrow and long, straight, cornuti absent.

Female genitalia (Fig. 4c). Papillae anales with an accessorial lobe between their inner margins; anterior apophysis relative short; ductus bursae narrow and long, spiral somewhat; corpus bursa relatively small, ovate; signum narrow and long.

Host plant: *Xylosma japonicum* (Walp.).

Holotype ♂, Shandong, Lushan Forestry Farm, 1 ♂, 25 May 1981 (L06193). Paratypes: 1 ♂, Shandong, Dongzhuang Forestry Farm, 29 Apr. 1981; 1 ♀, Mt. Tai, 7 July 1981 (L06194). 4 ♀ ♀, 1 ♂, Liaoning, Fengcheng, July 1964 (L06195, L06196).

1 ♂, Shaanxi, Foping (900 m), 27 June 1999, ZHANG Your Wei (L06197); 1 ♀, 2 ♂ ♂, Zhejiang, Mt. Tianmu, 24 July 1973, ZHANG Bao Lin (L06205, L06206). 1 ♀, 4 ♂ ♂, Beijing, Mt. Baihua, 9-18 July 1973, ZHANG Bao Lin, LIU Your Qiao (L06207, L06208).

Etymology. The name is derived from the Greek “trigramma” (= the name above species) and Greek postfix “oides” (= similar), corresponding to the similarity with the above species.

Distribution. Beijing, Liaoning, Zhejiang, Shandong, Shaanxi.

Diagnosis. The new species is related to *Birthissea trigramma* sp. nov., but differs from it by the forewing with thinner pale lines. In the male genitalia, it can be distinguished by the uncus widening apically and the juxta with the lateral process straight at base. In the female genitalia, the anterior apophysis is longer than that of *B. trigramma* sp. nov.

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环刺蛾属在中国首次发现及二新种记述 (鳞翅目, 刺蛾科)

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摘要 首次报道环刺蛾属 *Birthissea* Holloway 在中国有分布, 并记述 2 新种, 三纹环刺蛾 *B. trigramma* sp. nov. 和拟三纹环刺蛾 *B. trigrammoidea* sp. nov.。编制了本属已知种的检索

表, 提供了新种成虫彩色照片和外生殖器特征图。模式标本保存在中国科学院动物研究所。

关键词 鳞翅目, 刺蛾科, 环刺蛾属, 新种, 中国。

中图分类号 Q69. 431. 2